

**ABSTRACT**

In a process involving the formation of an  
insulating film on a substrate for an electronic device,  
5 the insulating film is formed on the substrate surface by  
carrying out two or more steps for regulating the  
characteristic of the insulating film involved in the  
process under the same operation principle. The  
formation of an insulating film having a high level of  
10 cleanness can be realized by carrying out treatment such  
as cleaning, oxidation, nitriding, and a film thickness  
reduction while avoiding exposure to the air. Further,  
carrying out various steps regarding the formation of an  
insulating film under the same operation principle can  
15 realize simplification of the form of an apparatus and  
can form an insulating film having excellent property  
with a high efficiency.